# Unit 2: R Vectors - Short Answer and MCQs

**Short Answer Questions:**

1. What is a vector in R?

2. How do you create a vector of strings in R?

3. What operator is used to generate a sequence of numbers in a vector?

4. How can you find the length of a vector in R?

5. How do you access the third element of a vector?

6. Explain how to change a specific value in a vector.

7. What is the purpose of the rep() function in R?

**Multiple Choice Questions:**

1. Which function is used to create a vector in R?

a) vector()

b) combine()

c) c()

d) list()

Answer: Answer: c)

2. What will 1:5 return in R?

a) [1] 1 2 3 4

b) [1] 1 2 3 4 5

c) [1] 5 4 3 2 1

d) Error

Answer: Answer: b)

3. How do you create a vector with TRUE and FALSE values?

a) log_vector <- vector(TRUE, FALSE)

b) log_vector <- c(TRUE, FALSE)

c) log_vector <- rep(TRUE, FALSE)

d) log_vector <- c("TRUE", "FALSE")

Answer: Answer: b)

4. Which function returns the number of elements in a vector?

a) count()

b) len()

c) size()

d) length()

Answer: Answer: d)

5. What does sort(c(4, 2, 9)) return?

a) [1] 9 4 2

b) [1] 4 2 9

c) [1] 2 4 9

d) Error

Answer: Answer: c)

6. What is the index number of the first item in an R vector?

a) 0

b) 1

c) -1

d) It depends on the vector type

Answer: Answer: b)

7. What does fruits[c(1, 3)] return if fruits <- c("banana", "apple", "orange")?

a) banana apple

b) apple orange

c) banana orange

d) Error

Answer: Answer: c)

8. Which function can be used to repeat elements in a vector?

a) repeat()

b) rep()

c) loop()

d) dup()

Answer: Answer: b)

9. What will fruits[-1] return if fruits <- c("banana", "apple", "orange")?

a) Only "banana"

b) All items

c) All items except "banana"

d) Error

Answer: Answer: c)

10. Which of the following is used to generate a numeric sequence with a defined interval?

a) rep()

b) range()

c) seq()

d) series()

Answer: Answer: c)